USER INTERFACE AND USER EXPERIENCE DESIGN
(21UCS805)

SYLLABUS
UNIT I: UNDERSTANDING GOAL-DIRECTED DESIGN
Goal-Directed Design: Digital Products Need Better Design Methods - The Evolution of Design in Manufacturing - Planning and Designing Behavior - Recognizing User Goals - The Goal-Directed Design Process. Implementation Models and Mental Models: Implementation Models, User Mental Models- Represented Models- Most Software Conforms to Implementation Models - Mechanical-Age versus Information-Age Represented Models.

UNIT II: DESIGNING BEHAVIOR AND FORM
Synthesizing Good Design: Principles and Patterns: Interaction Design Principles - Design Values - Interaction Design Patterns. Platform and Posture: Posture - Designing Desktop Software - Designing for the Web - Other Platforms. Eliminating Excise: GUI Excise - Stopping the Proceedings - Common Excise Traps - Navigation Is Excise - Improving Navigation.

UNIT III: DESIGNING GOOD BEHAVIOR AND VISUAL INTERFACE
Designing Considerate Products - Designing Smart Products. Metaphors, Idioms, and Affordances: Interface Paradigms - Further Limitations of Metaphors - Building Idioms - Manual Affordances. Visual Interface Design: Art, Visual Interface Design, and Other Design Disciplines - The Building Blocks of Visual Interface Design - Principles of Visual Interface Design - Principles of Visual Information Design - Consistency and Standards.

UNIT IV: DESIGNING INTERACTION AND WINDOWS BEHAVIORS
Searching and Finding: Improving Data Retrieval – Storage and Retrieval Systems - Storage and Natural Language Output: An Ideal Interface for Attribute-Based Retrieval. Window Behaviors: PARC and the Alto - PARC's Principles - Microsoft and Tiled Windows - Full-Screen Applications - Multipaned Applications - Designing with Windows - Window States - MDI versus SDI.

UNIT V: CONTROLS, MENUS, TOOLBARS, DIALOGS
Controls: Avoiding Control-Laden Dialog Boxes - Imperative Controls - Selection Controls - Entry Controls - Display Controls. Menus: Menus Today: The Pedagogic Vector - Optional Menus - Menu Idioms. Toolbars: Visible, Immediate Commands - Toolbars and Toolbar Controls - Appropriate Uses for Dialog Boxes - Four Different Purposes for Dialogs - Managing Content in Dialog Boxes - Errors, Alerts, and Confirmation Dialogs.

TEXTS
- Alan Cooper, Robert Reimann , David Cronin, "About Face 3: The Essentials of Interaction Design, John Wiley & Sons (15 May 2007), ISBN-13: 978-0470084113

REFERENCE(s):
- IDEO, "The Field Guide to Human-Centered Design", IDEO.ORG (2015),
- Jesse James Garrett , "The Elements of User Experience: User-Centered Design for the Web and Beyond - Voices That Matter".